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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/769,695

DATE: 08/02/2004

TIME: 14:58:12

Input Set : A:\Knockout-USPAP.ST25.txt

Output Set: N:\CRF4\08022004\J769695.raw

3 <110> APPLICANT: Palatin Technologies, Inc.  
 4 Sharma, Shubh  
 5 Shi, Yi-Qun  
 6 Bastos, Margarita  
 7 Rajpurohit, Ramesh  
 8 Cai, Hui-Zhi  
 10 <120> TITLE OF INVENTION: Knockout Identification of Target-Specific Sites in Peptides  
 12 <130> FILE REFERENCE: 70025-US04-129  
 14 <140> CURRENT APPLICATION NUMBER: 10/769,695  
 C--> 15 <141> CURRENT FILING DATE: 2004-01-30  
 17 <150> PRIOR APPLICATION NUMBER: US 60/444,129  
 18 <151> PRIOR FILING DATE: 2003-01-31  
 20 <160> NUMBER OF SEQ ID NOS: 65  
 22 <170> SOFTWARE: PatentIn version 3.2  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 13  
 26 <212> TYPE: PRT  
 27 <213> ORGANISM: Artificial  
 29 <220> FEATURE:  
 30 <223> OTHER INFORMATION: alpha-MSH analog specific for melanocortin receptors  
 32 <400> SEQUENCE: 1  
 34 Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val  
 35 1 5 10  
 38 <210> SEQ ID NO: 2  
 39 <211> LENGTH: 14  
 40 <212> TYPE: PRT  
 41 <213> ORGANISM: Artificial  
 43 <220> FEATURE:  
 44 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog  
 47 <220> FEATURE:  
 48 <221> NAME/KEY: MISC\_FEATURE  
 49 <222> LOCATION: (4)..(4)  
 50 <223> OTHER INFORMATION: Norleucine  
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 55 1 5 10  
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 60 <212> TYPE: PRT  
 61 <213> ORGANISM: Artificial  
 63 <220> FEATURE:  
 64 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog  
 67 <220> FEATURE:



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68 <221> NAME/KEY: MISC_FEATURE
69 <222> LOCATION: (4)..(4)
70 <223> OTHER INFORMATION: Norleucine
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75 1 5 10
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81 <213> ORGANISM: Artificial
83 <220> FEATURE:
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87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (4)..(4)
90 <223> OTHER INFORMATION: Norleucine
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W--> 94 Ser Tyr Ser Xaa Glu His Phe Arg Trp Gly Lys Cys Pro Val
95 1 5 10
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99 <211> LENGTH: 14
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial
103 <220> FEATURE:
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107 <220> FEATURE:
108 <221> NAME/KEY: MISC_FEATURE
109 <222> LOCATION: (4)..(4)
110 <223> OTHER INFORMATION: Norleucine
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W--> 114 Ser Tyr Ser Xaa Glu His Phe Arg Trp Gly Cys Lys Pro Val
115 1 5 10
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121 <213> ORGANISM: Artificial
123 <220> FEATURE:
124 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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128 <221> NAME/KEY: MISC_FEATURE
129 <222> LOCATION: (4)..(4)
130 <223> OTHER INFORMATION: Norleucine
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W--> 134 Ser Tyr Ser Xaa Glu His Phe Arg Trp Cys Gly Lys Pro Val
135 1 5 10
138 <210> SEQ ID NO: 7
139 <211> LENGTH: 14
140 <212> TYPE: PRT
141 <213> ORGANISM: Artificial

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144 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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160 <212> TYPE: PRT
161 <213> ORGANISM: Artificial
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170 <223> OTHER INFORMATION: Norleucine
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184 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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188 <221> NAME/KEY: misc_feature
189 <222> LOCATION: (4)..(4)
190 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
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203 <220> FEATURE:
204 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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208 <221> NAME/KEY: MISC_FEATURE
209 <222> LOCATION: (4)..(4)
210 <223> OTHER INFORMATION: Norleucine
212 <400> SEQUENCE: 10
W--> 214 Ser Tyr Ser Xaa Glu Cys His Phe Arg Trp Gly Lys Pro Val
      215 1          5          10
218 <210> SEQ ID NO: 11

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228 <221> NAME/KEY: MISC_FEATURE
229 <222> LOCATION: (4)..(4)
230 <223> OTHER INFORMATION: Norleucine
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248 <221> NAME/KEY: MISC_FEATURE
249 <222> LOCATION: (5)..(5)
250 <223> OTHER INFORMATION: Norleucine
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268 <221> NAME/KEY: MISC_FEATURE
269 <222> LOCATION: (5)..(5)
270 <223> OTHER INFORMATION: Norleucine
272 <400> SEQUENCE: 13
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      275 1                5                10
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279 <211> LENGTH: 11
280 <212> TYPE: PRT
281 <213> ORGANISM: Artificial
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Nle-3 substituted gamma-MSH analog for melanocortin
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287 <220> FEATURE:
288 <221> NAME/KEY: MISC_FEATURE
289 <222> LOCATION: (3)..(3)
290 <223> OTHER INFORMATION: Norleucine
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Input Set : A:\Knockout-USPAP.ST25.txt

Output Set: N:\CRF4\08022004\J769695.raw

W--&gt; 294 Tyr Val Xaa Gly His Phe Arg Trp Asp Arg Phe

295 1 5 10

298 &lt;210&gt; SEQ ID NO: 15

299 &lt;211&gt; LENGTH: 12

300 &lt;212&gt; TYPE: PRT

301 &lt;213&gt; ORGANISM: Artificial

303 &lt;220&gt; FEATURE:

304 &lt;223&gt; OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH

analog

307 &lt;220&gt; FEATURE:

308 &lt;221&gt; NAME/KEY: MISC\_FEATURE

309 &lt;222&gt; LOCATION: (3)..(3)

310 &lt;223&gt; OTHER INFORMATION: Norleucine

312 &lt;400&gt; SEQUENCE: 15

W--&gt; 314 Tyr Val Xaa Gly His Phe Arg Trp Asp Arg Phe Cys

315 1 5 10

318 &lt;210&gt; SEQ ID NO: 16

319 &lt;211&gt; LENGTH: 12

320 &lt;212&gt; TYPE: PRT

321 &lt;213&gt; ORGANISM: Artificial

323 &lt;220&gt; FEATURE:

324 &lt;223&gt; OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH

analog

327 &lt;220&gt; FEATURE:

328 &lt;221&gt; NAME/KEY: MISC\_FEATURE

329 &lt;222&gt; LOCATION: (3)..(3)

330 &lt;223&gt; OTHER INFORMATION: Norleucine

332 &lt;400&gt; SEQUENCE: 16

W--&gt; 334 Tyr Val Xaa Gly His Phe Arg Trp Asp Arg Cys Phe

335 1 5 10

338 &lt;210&gt; SEQ ID NO: 17

339 &lt;211&gt; LENGTH: 12

340 &lt;212&gt; TYPE: PRT

341 &lt;213&gt; ORGANISM: Artificial

343 &lt;220&gt; FEATURE:

344 &lt;223&gt; OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH

analog

347 &lt;220&gt; FEATURE:

348 &lt;221&gt; NAME/KEY: MISC\_FEATURE

349 &lt;222&gt; LOCATION: (3)..(3)

350 &lt;223&gt; OTHER INFORMATION: Norleucine

352 &lt;400&gt; SEQUENCE: 17

W--&gt; 354 Tyr Val Xaa Gly His Phe Arg Trp Asp Cys Arg Phe

355 1 5 10

358 &lt;210&gt; SEQ ID NO: 18

359 &lt;211&gt; LENGTH: 12

360 &lt;212&gt; TYPE: PRT

361 &lt;213&gt; ORGANISM: Artificial

363 &lt;220&gt; FEATURE:

364 &lt;223&gt; OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH

analog

367 &lt;220&gt; FEATURE:

368 &lt;221&gt; NAME/KEY: MISC\_FEATURE



RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/769,695

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Input Set : A:\Knockout-USPAP.ST25.txt  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 4  
Seq#:3; Xaa Pos. 4  
Seq#:4; Xaa Pos. 4  
Seq#:5; Xaa Pos. 4  
Seq#:6; Xaa Pos. 4  
Seq#:7; Xaa Pos. 4  
Seq#:8; Xaa Pos. 4  
Seq#:9; Xaa Pos. 4  
Seq#:10; Xaa Pos. 4  
Seq#:11; Xaa Pos. 4  
Seq#:12; Xaa Pos. 5  
Seq#:13; Xaa Pos. 5  
Seq#:14; Xaa Pos. 3  
Seq#:15; Xaa Pos. 3  
Seq#:16; Xaa Pos. 3  
Seq#:17; Xaa Pos. 3  
Seq#:18; Xaa Pos. 3  
Seq#:19; Xaa Pos. 3  
Seq#:20; Xaa Pos. 3  
Seq#:21; Xaa Pos. 3  
Seq#:22; Xaa Pos. 3  
Seq#:23; Xaa Pos. 3  
Seq#:24; Xaa Pos. 4  
Seq#:25; Xaa Pos. 1  
Seq#:26; Xaa Pos. 1,14  
Seq#:27; Xaa Pos. 1,15  
Seq#:28; Xaa Pos. 1,15  
Seq#:29; Xaa Pos. 1,15  
Seq#:30; Xaa Pos. 1,15  
Seq#:31; Xaa Pos. 1,15  
Seq#:32; Xaa Pos. 1,15  
Seq#:33; Xaa Pos. 1,15  
Seq#:34; Xaa Pos. 1,15  
Seq#:35; Xaa Pos. 1,15  
Seq#:36; Xaa Pos. 1,15  
Seq#:37; Xaa Pos. 1,15  
Seq#:38; Xaa Pos. 15  
Seq#:40; Xaa Pos. 1  
Seq#:41; Xaa Pos. 1,14  
Seq#:42; Xaa Pos. 1,14  
Seq#:43; Xaa Pos. 1,14  
Seq#:44; Xaa Pos. 1,14  
Seq#:45; Xaa Pos. 1,14  
Seq#:46; Xaa Pos. 1,14



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Seq#:47; Xaa Pos. 1,14  
Seq#:48; Xaa Pos. 1,14  
Seq#:49; Xaa Pos. 1,14  
Seq#:50; Xaa Pos. 1,14  
Seq#:51; Xaa Pos. 14  
Seq#:65; Xaa Pos. 3

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27  
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51  
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65



## VERIFICATION SUMMARY

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Input Set : A:\Knockout-USPAP.ST25.txt

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L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0

L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0

L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0

L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0

L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0

L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0

L:214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0

L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0

L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0

L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0

L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0

L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0

L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0

L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0

L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0

L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0

L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0

L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0

L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0

L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0

L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0

L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0

L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0

L:564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0

L:589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0

L:614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0

L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0

L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0

L:689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0

L:714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0

L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0

L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0

L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0

L:814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0

L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0

L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0

L:898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0

L:923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0

L:948 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0

L:973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0

L:998 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0

L:1023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0

L:1048 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0

L:1073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0

L:1098 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0



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L:1123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0  
L:1143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0  
L:1346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0